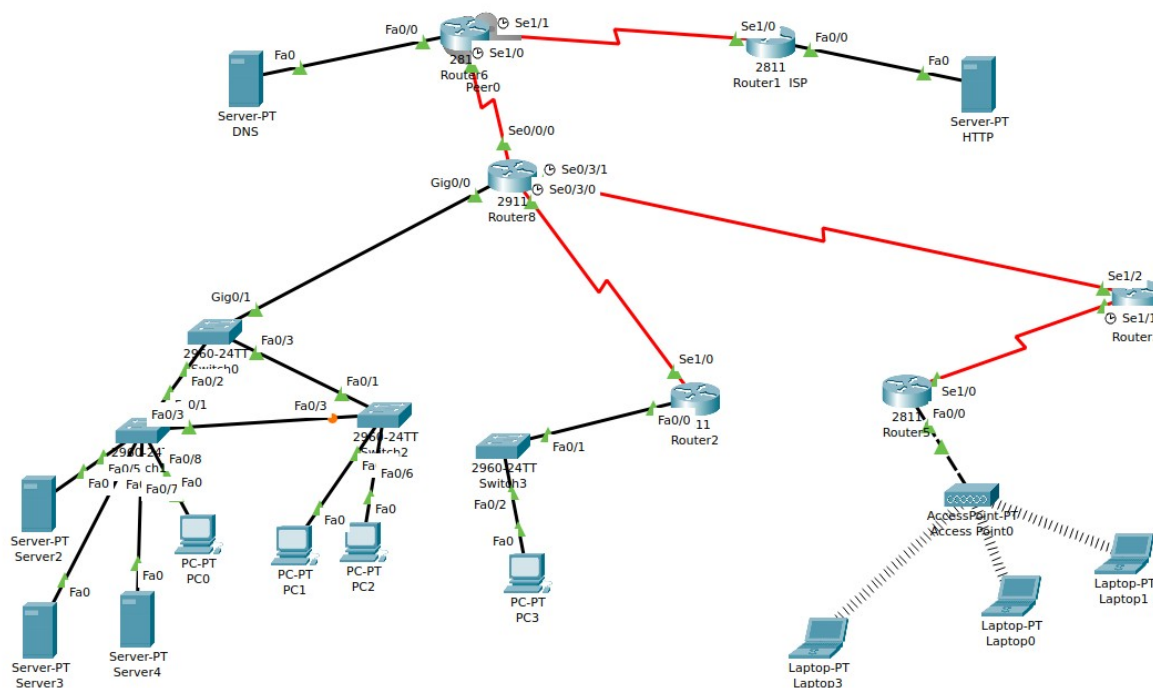


3rd Assignment:

Applied Networking Lab WS 23/24



Question : (3 + 3 + 5 =11 Points): Case Study End-to-End Connectivity

Objective:

To configure a network with end-to-end connectivity using a combination of private and public IP addresses, serial port connectivity, wireless connectivity, ISP connectivity, and cloud connectivity.

Deployment Steps:

1. Web/HTTP & DNS Server:

- Install and configure a web server and DNS server on a device with a public IP address.
- Configure the web server to respond to HTTP requests and the DNS server to resolve domain names to IP addresses.

- Ensure that the web server and DNS server are accessible from all nodes and servers in the network.
2. **WAN/Serial Ports:**
 - Configure a router for WAN connectivity to the ISP.
 - Configure the router's serial ports for serial port connectivity to other devices in the network.
 - Statically configure the IP addresses of the devices connected to the serial ports.
 3. **Fast Ethernet:**
 - Connect a fast Ethernet switch to the router to create a LAN network.
 - Connect the devices in the network to the fast Ethernet switch.
 4. **Enable RIP:**
 - Enable RIP on the router to update the router with information about the neighbors in the network.
 - This will allow the router to dynamically route traffic between the devices in the network.

Expected Outcomes:

1. **End-to-end ping:**
 - Ping each device in the network from each other device.
 - The pings should be successful.
2. **Access the website:**
 - Access the web server from a device in the network.
 - The web server should be accessible.

Assessment:

The assignment will be assessed based on the following criteria:

1. **Correctness: (3 points)** The solution should be configured correctly according to the specifications.
2. **Completeness: (3 Points)** The solution should include all of the required components and configurations.
3. **Testing: (5 points)** The solution should be tested thoroughly to ensure that it meets all of the requirements.

Due Date: MONDAY, JANUARY 08th, 2024, 10:00 am

Upload all relevant files (answers to theoretical questions as either PDF or .txt plus, .pkt, GNS-3 config files, etc.) to ISIS:

<https://isis.tu-berlin.de/course/view.php?id=35211>

Put the names and Student ID numbers (Matrikelnummer) of **all** your group members on your solution!